

SECTION 07710

EDGE METAL ROOF SPECIALTIES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Metal Drip Edge.
- B. Metal Econo Coping.
- C. Metal Fascia Cover.
- D. Metal Gravel Stop.
- E. Metal Gutter.
- F. Metal Snap Gravel Stop.
- G. Metal Spring Tite Coping.
- H. Accessories.

1.2 RELATED SECTIONS

- A. Section 06150 - Wood Decking.
- B. Section 06160 - Sheathing: Plywood and oriented strand board.
- C. Section 06200 - Wood Trim.
- D. Section 07220 - Roof and Deck Insulation: Roof board insulation.
- E. Section 07310 - Roof Shingles.
- F. Section 07320 - Roof Tiles.
- G. Section 07410 - Metal Roof and Wall Panels: Preformed metal roofing.
- H. Section 07500 - Membrane Roofing.
- I. Section 07620 - Sheet Metal Flashing and Trim.
- J. Section 07720 - Roof Accessories: Soffit vents, roof pavers, etc.

1.3 REFERENCES

- A. ANSI/SPRI ES-1 - Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems.
- B. ANSI/SPRI GD-1 – Structural Design Standard for Gutter Systems Used with Low Slope Roofing Systems.

- C. SPRI Single Ply Roofing Industry Standards.

#### 1.4 PERFORMANCE REQUIREMENTS

- A. ANSI/SPRI ES-1 or GD-1 tested and certified by a 3<sup>rd</sup> party testing laboratory active in the testing of industry standard edge metal systems.

#### 1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
- C. Shop Drawings: Show profiles, joining method, location of accessory items, attachment and flashing details, membrane roof interface, and dimensions.
- D. Finish/Color Samples: For each color product specified, two complete sets of color charts representing Manufacturer's full range of minimum 35 colors and patterns.
- E. Verification Samples: For each color product specified, two sample chips representing actual product, color, and patterns.
- F. Manufacturer's Certificates: Certify products meet specified performance requirements.

#### 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company certified by Drexel as a "DM-ARM Authorized Fabricator" in manufacturing Edge Metal Products specified in this section.
- B. 3<sup>rd</sup> Party QA Certification: "DM-ARM Authorized Fabricator" certified and inspected by 3<sup>rd</sup> party ANSI/SPRI authorized testing laboratory for quality assurance. Current annual certificate required.
- C. Installer Qualifications: Company certified by Drexel as a "Certified Installer" in the installation of Edge Metal Products specified in this section.
- D. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
  - 1. Finish areas designated by Architect.
  - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
  - 3. Refinish mock-up area as required to produce acceptable work.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in Manufacturer's unopened packaging until ready for installation.
- B. Store materials in a dry, protected, well-vented area.
- C. Remove protective plastic surface film immediately before installation.
- D. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

## 1.8 SEQUENCING

- A. Ensure that information required for installation of products of this section are furnished to affected trades in time to prevent interruption of construction progress.
- B. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
- C. Coordinate installation with roof membrane manufacturer's installation instructions.

## 1.9 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by Manufacturer for optimum results. Do not install products under environmental conditions outside Manufacturer's absolute limits.

## 1.10 WARRANTY

- A. Bare/Unpainted Corrosion Warranty: Drexel Drexlume® (Acrylic Coated Galvalume) AZ-55 comes with a 25 year, 6 month warranty (salt water locations within 2,800 feet from direct surf, 1,200 feet from a large bay, or 600 feet from marshes and canals are excluded).
- B. Paint Finish Warranty: Drexmet® 35 year "Non Pro-Rated" Paint Finish Warranty for all colors. Drexel Metals Inc. standard form in which manufacturer agrees to repair finish or replace material that show evidence of deterioration of factory-applied finishes within specified warranty period.
  - a. Fluoropolymer Paint Finish Warranty Period: 35 years from date of substantial completion.
  - b. Failures include, but are not limited to, the following:
    - i. Structural failures including rupturing, cracking, or puncturing.
  - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering and excluding salt water locations within specified number of feet
    - i. Drexel Job Information Sheet and Warranty Applications must be completed prior to delivery of the warranty.
  - d. Energy Efficient Roof Coatings: A number of Drexmet® Standard Colors meet the minimum standard energy efficient requirements as outlined in the Energy Star Program.
- C. Galvalume Substrate Warranty AZ-50: 20 year (salt water locations within 2,800 feet from direct surf, 1,200 feet from a large bay, or 600 feet from marshes and canals are excluded).
- D. Aluminum Substrate Warranty: 25 year within 2800 feet of coastline / 30 year greater than 2800 feet of coastline.

## PART 2 PRODUCTS

### 1.11 MANUFACTURERS

- A. Acceptable Manufacturer: Drexel Metals Inc., which is located at: 1234 Gardiner Lane, Louisville, KY ; Toll Free Tel: 888-321-9630 ; Tel: 502-716-7143; Web: [www.drexelmetals.com](http://www.drexelmetals.com)
- B. Substitutions: Not permitted.

## 1.12 ROOF EDGE PRODUCTS

A. Metal Drip Edge: Decorative metal Drip Edge with continuous 22 Gauge Cleat. Cleat to be pre-punched by Drexel for precise attachment.

1. Construction:

a. Drip Edge Material:

- 1) .040 inch (1 mm) thick formed aluminum.
- 2) 24 gauge Galvalume coated steel.

b. Drip Edge Finish:

- 1) Drexmet® 35 year color as selected by the Architect from Drexel's color chart.
- 2) Drexlume® (Acrylic Coated Galvalume).
- 3) Bare/Unpainted mill finish aluminum.

c. Drip Edge Length:

- 1) Standard 10'-0"(3.048m), or up to 20'-0"(6.096m) maximum.

d. Drip Edge Attachment:

- 1) 1-1/4" Stainless Steel Ring Shank Nails provided by Drexel attached to substrate at 12" on center through Cleat.
- 2) Certified per ANSI/SPRI ES-1 Standard to a design pressure of 390 lbs./ft<sup>2</sup> (24GA Steel) and 410 lbs./ft<sup>2</sup> (.040" AL) to comply with the International Building Code.

B. Metal Econo Coping: Decorative metal Econo Coping with continuous 22 Gauge Cleat. Cleat to be pre-punched by Drexel for precise attachment.

1. Construction:

a. Econo Coping Material:

- 1) .040 inch (1 mm) thick formed aluminum.
- 2) 24 gauge Galvalume coated steel.

b. Econo Coping Finish:

- 1) Drexmet® 35 year color as selected by the Architect from Drexel's color chart.
- 2) Drexlume® (Acrylic Coated Galvalume).
- 3) Bare/Unpainted mill finish aluminum.

c. Econo Coping Length:

- 1) Standard 10'-0"(3.048m), or up to 20'-0"(6.096m) maximum.

d. Econo Coping Attachment:

- 1) 1-1/4" Stainless Steel Ring Shank Nails provided by Drexel attached to substrate face side at 12" on center through Cleat.
- 2) #9 Washered Drexmet Woodscrew provided by Drexel attached to substrate roof side at 12" on center.
- 3) Certified 16" maximum width per ANSI/SPRI ES-1 Standard to a design pressure of 250 lbs./ft<sup>2</sup> (24GA Steel) and 260 lbs./ft<sup>2</sup> (.040" AL) to comply with the International Building Code.
- 4) Certified 20" maximum width per ANSI/SPRI ES-1 Standard to a design pressure of 210 lbs./ft<sup>2</sup> (24GA Steel) and 210 lbs./ft<sup>2</sup> (.040" AL) to comply with the International Building Code.

C. Metal Fascia Cover: Decorative metal Fascia Cover with continuous 22 Gauge Cleat. Cleat to be pre-punched by Drexel for precise attachment.

1. Construction:

a. Fascia Cover Material:

- 1) .040 inch (1 mm) thick formed aluminum.
- 2) 24 gauge Galvalume coated steel.

b. Fascia Cover Finish:

- 1) Drexmet® 35 year color as selected by the Architect from Drexel's color chart.

- 2) Drexlume® (Acrylic Coated Galvalume).
  - 3) Bare/Unpainted mill finish aluminum.
  - c. Fascia Cover Length:
    - 1) Standard 10'-0"(3.048m), or up to 20'-0"(6.096m) maximum.
  - d. Fascia Cover Attachment:
    - 1) #10 Pancake Head Woodscrew Stainless Steel provided by Drexel attached to substrate at 12" on center through Cleat.
    - 2) Certified per ANSI/SPRI ES-1 Standard to a design pressure of 135 lbs./ft<sup>2</sup> (24GA Steel) and 135 lbs./ft<sup>2</sup> (.040" AL) to comply with the International Building Code.
- D. Metal Gravel Stop: Decorative metal Gravel Stop with continuous 22 Gauge Cleat. Cleat to be pre-punched by Drexel for precise attachment.
- 1. Construction:
    - a. Gravel Stop Material:
      - 1) .040 inch (1 mm) thick formed aluminum.
      - 2) 24 gauge Galvalume coated steel.
    - b. Gravel Stop Finish:
      - 1) Drexmet® 35 year color as selected by the Architect from Drexel's color chart.
      - 2) Drexlume® (Acrylic Coated Galvalume).
      - 3) Bare/Unpainted mill finish aluminum.
    - c. Gravel Stop Length:
      - 1) Standard 10'-0"(3.048m), or up to 20'-0"(6.096m) maximum.
    - d. Gravel Stop Attachment:
      - 1) 1-1/4" Stainless Steel Ring Shank Nails provided by Drexel attached to substrate at 12" on center through Cleat.
      - 2) Certified per ANSI/SPRI ES-1 Standard to a design pressure of 180 lbs./ft<sup>2</sup> (24GA Steel) and 170 lbs./ft<sup>2</sup> (.040" AL) to comply with the International Building Code.
- E. Metal Gutter: Decorative metal Gutter.
- 1. Construction:
    - a. Gutter Material:
      - 1) .040 inch (1 mm) thick formed aluminum.
      - 2) 24 gauge Galvalume coated steel.
    - b. Gutter Finish:
      - 1) Drexmet® 35 year color as selected by the Architect from Drexel's color chart.
      - 2) Drexlume® (Acrylic Coated Galvalume).
      - 3) Bare/Unpainted mill finish aluminum.
    - c. Gutter Length:
      - 1) Standard 10'-0"(3.048m), or up to 20'-0"(6.096m) maximum.
    - d. Gutter Attachment:
      - 1) #10 Pancake Head Woodscrew Stainless Steel provided by Drexel attached to substrate at 12" on center.
      - 2) Drexel Gutter Bracket made from .063" aluminum spaced to meet performance requirements and design loads.(24" o.c. max.)
      - 3) #9 Washered Drexmet Woodscrew Stainless Steel provided by Drexel attached through gutter bracket to substrate.
      - 4) Certified per ANSI/SPRI GD-1 Standard to a design pressure of below to comply with the International Building Code.
 

<u>24GA Steel Gutter</u>	<u>.040" Aluminum Gutter</u>
G-1 Horizontal = 200psf	G-1 Horizontal = 210psf
G-2 Vertical = 90psf	G-2 Vertical = 90psf
G-3 Static = 280psf	G-3 Static = 290psf

- F. Metal Snap Gravel Stop: Decorative metal Snap Gravel Stop with continuous 22 Gauge Cleat. Cleat to be pre-punched by Drexel for precise attachment.
1. Construction:
    - a. Snap Gravel Stop Material:
      - 1) .040 inch (1 mm) thick formed aluminum.
      - 2) 24 gauge Galvalume coated steel.
    - b. Snap Gravel Stop Finish:
      - 1) Drexmet® 35 year color as selected by the Architect from Drexel's color chart.
      - 2) Drexlume® (Acrylic Coated Galvalume).
      - 3) Bare/Unpainted mill finish aluminum.
    - c. Snap Gravel Stop Length:
      - 1) Standard 10'-0"(3.048m), or up to 20'-0"(6.096m) maximum.
    - d. Snap Gravel Stop Attachment:
      - 1) 1-1/4" Stainless Steel Ring Shank Nails provided by Drexel attached to substrate at 12" on center through Cleat.
      - 2) Certified per ANSI/SPRI ES-1 Standard to a design pressure of 90 lbs./ft<sup>2</sup> (24GA Steel) and 75 lbs./ft<sup>2</sup> (.040" AL) to comply with the International Building Code.
- G. Metal Spring Tite Coping: Decorative metal Spring Tite Coping with continuous 22 Gauge Cleat. Cleat to be pre-punched by Drexel for precise attachment.
1. Construction:
    - a. Spring Tite Coping Material:
      - 1) .040 inch (1 mm) thick formed aluminum.
      - 2) 24 gauge Galvalume coated steel.
    - b. Spring Tite Coping Finish:
      - 1) Drexmet® 35 year color as selected by the Architect from Drexel's color chart.
      - 2) Drexlume® (Acrylic Coated Galvalume).
      - 3) Bare/Unpainted mill finish aluminum.
    - c. Spring Tite Coping Length:
      - 1) Standard 10'-0"(3.048m), or up to 20'-0"(6.096m) maximum.
    - d. Spring Tite Coping Attachment:
      - 1) #10 Pancake Head Woodscrew Stainless Steel provided by Drexel attached to substrate at 12" on center through Cleat.
      - 2) Certified 16" maximum width per ANSI/SPRI ES-1 Standard to a design pressure of 105 lbs./ft<sup>2</sup> (24GA Steel) and 90 lbs./ft<sup>2</sup> (.040" AL) to comply with the International Building Code.
      - 3) Certified 20" maximum width per ANSI/SPRI ES-1 Standard to a design pressure of 90 lbs./ft<sup>2</sup> (24GA Steel) and 75 lbs./ft<sup>2</sup> (.040" AL) to comply with the International Building Code.

### 1.13 ACCESSORIES

- A. Miters, Termination Ends, and End Caps shall be fabricated by Drexel to suit the conditions indicated on the Shop Drawings.
- B. Provide Drexmet fasteners consistent with manufacturer's instructions for each product that is suitable for the substrate to which it is being installed.

## PART 3 EXECUTION

### 1.14 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Verify that the substrate is dry, clean and free of foreign matter.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

#### 1.15 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the Manufacturer for achieving the best result for the substrate under the project conditions.
- C. Verify Manufacturer's roof edge details for application to fit the assembly prior to fabrication.

#### 1.16 INSTALLATION

- A. Install in accordance with Manufacturer's installation instructions.
- B. Use provided fasteners consistent with Manufacturer's instructions.
- C. Install water cut-off mastics and sealants, as recommended by the membrane manufacturer.

#### 1.17 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up scratched finish areas with Drexel "Drexmet® Touch-Up Paint Pen".
- C. Repair or replace damaged products before Substantial Completion.

END OF SECTION